a means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,

an incubator in which the first chemical analysis element spotted with the sample liquid and the second chemical analysis element spotted with the sample liquid and the reference liquid are placed and which holds the first and second chemical analysis elements at constant temperatures,

a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,

an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator,

a temperature control means which holds the first and second chemical analysis elements at predetermined temperatures, and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

2. A chemical analysis system as defined in Claim 1, further provided with a chemical analysis element supply section which stores both the first and the second chemical analysis elements, and a conveyor means for conveying the chemical analysis element in the chemical analysis element supply section to the incubator.

4. A chemical analysis system as defined in Claim 1 further provided with a diluting unit which includes a sample liquid contained and dilutes the sample liquid in the container with diluent.

5. (Amended) A chemical analysis system comprising

a means for spotting a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid,

a means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,

an incubator in which the first chemical analysis element spotted with the sample liquid and/or the second chemical analysis element spotted with the sample liquid and the reference liquid are placed and which holds the first and/or second chemical analysis elements at constant temperatures,

a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,

an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator,

a temperature control means which holds the first chemical analysis element at a first predetermined temperature suitable for measuring the optical density of the color formed by the

coloring reaction and holds the second chemical analysis elements at a second predetermined temperatures suitable for measuring ionic activity, and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

6. A chemical analysis system as defined in Claim 5 further provided with a chemical analysis element supply section which stores both the first and second chemical analysis elements, and a conveyor means for conveying the chemical analysis element in the chemical analysis element supply section to the incubator.

8. A chemical analysis system as defined in Claim 5 further provided with a diluting unit which includes a sample liquid container and dilutes the sample liquid in the container with diluent.

9. (Twice Amended) A chemical analysis system, comprising:

a spotting mechanism operable to spot a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid, and operable to spot a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid;

an incubator in which the first chemical analysis element spotted with the sample liquid and the second chemical analysis element spotted with the sample liquid and the reference liquid

are placed and which holds the first and second chemical analysis elements at constant temperatures;

a concentration measuring device operable to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator;

an ionic activity measuring device operable to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator;

a temperature control device which holds the first and second chemical analysis elements at predetermined temperatures; and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

10. A chemical analysis system as defined in claim 1, further provided with a receiving portion located in the incubator which stores a single chemical analysis element.

11. A chemical analysis system as defined in claim 10, further provided with a plurality of the receiving portions, which are located in the incubator, each for storing a chemical analysis element wherein the incubator is capable of simultaneously maintaining different temperatures in the different receiving portions.

12. A chemical analysis system as defined in claim 10, wherein the incubator is capable of simultaneously maintaining different temperatures for the first chemical analysis element and for the second chemical analysis element.

13. A chemical analysis system as defined in claim 5, further provided with a receiving portion located in the incubator which stores a single chemical analysis element.

14. A chemical analysis system as defined in claim 13, further provided with a plurality of the receiving portions, which are located in the incubator, each for storing a chemical analysis element wherein the incubator is capable of simultaneously maintaining different temperatures in the different receiving portions.

15. A chemical analysis system as defined in claim 13, wherein the incubator is capable of simultaneously maintaining different temperatures for the first chemical analysis element and for the second chemical analysis element.

16. A chemical analysis system comprising

means for spotting a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid,

means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,

an incubator capable of simultaneously maintaining two different temperatures for simultaneously holding the first chemical analysis element spotted with the sample liquid and the second chemical analysis element spotted with the sample liquid and the reference liquid,

a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,

an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator, and

a temperature control means which holds the first chemical analysis element at a first predetermined temperature suitable for measuring the optical density of the color formed by the coloring reaction and holds the second chemical analysis element at a second predetermined temperature suitable for measuring the ionic activity.

17. A chemical analysis system as defined in claim 16, further provided with a receiving portion located in the incubator which stores a single chemical analysis element.

18. A chemical analysis system as defined in claim 17, further provided with a plurality of the receiving portions, which are located in the incubator, each for storing a chemical analysis element wherein the incubator is capable of simultaneously maintaining different temperatures in the different receiving portions.

19. A chemical analysis system as defined in claim 16, wherein the incubator is capable of simultaneously maintaining the temperature of about 30 °C at the receiving portion for storing the first chemical analysis element and the temperature of 37 °C at the receiving portion for the second chemical analysis element.

20. A chemical analysis system as defined in claim 16, further provided with a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on the back of each chemical analysis element.